VIPER ®

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OWNER'S GUIDE

MODEL
4205V

Congratulations

Congratulations on the purchase of your remote start system. Reading this Owner's Guide prior to using your system will help maximize the use of your system and its many features. For any additional questions please contact your authorized Directed dealer or contact Directed at **1-800-753-0600**. (U.S. only) or 1-800-361-7271 (Canada only) Additional support is also available at: **http://support.directed.com**

Important Information

Government Regulations and Safety information

⚠️ Read the *Government Regulations* and *Warning! Safety First* sections of this manual prior to operating this system.

Warning! Failure to heed this information can result in death, personal injury or property damage and may also result in the illegal use of the system beyond its intended purpose.

Your Warranty
Your system comes with a warranty. The warranty terms are detailed at the end of this guide. Make sure that you receive the proof of purchase from your dealer, indicating the product was installed by an authorized Directed dealer.

Replacement remote controls
Please see your authorized dealer or visit us at **www.directedstore.com** to order additional remote controls. Remote control part numbers are found on the back of the device.

Battery Information

The remote control is powered by two coin cell batteries (CR-2016) that can be purchased at most retailers. The operating range diminishes as the battery charge depletes.

Replacing the Battery
1. If present, remove the small screw on the back of the remote.
2. Use a small flat blade screw driver and insert it into the slot located along the bottom of the remote, near the key ring. Carefully pry open the case.
3. Gently slide out the used batteries to remove them from the holding clip. Orient the new batteries for the correct polarity and insert into holding clip.
4. Reposition case parts, and snap together by pressing firmly and evenly on the front and back. Reinstall screw (if applicable).

Battery Disposal

Directed cares about the environment. If you need to dispose of the battery, please do so in accordance with your municipal requirements for battery disposal or return to Directed.

Contents

Using Your System

Commands At a Glance

System State	Press/Release	Press/Hold for 3 sec.
ENGINE OFF	START ENGINE	CAR FINDER
ENGINE ON	UNLOCK DOORS	STOP ENGINE

Start Engine
When the engine is OFF, press and release the remote control button to start the engine. The remote plays the remote start activation tones and the green LED flashes once.

See"Using Remote Start" on page 3 for more feature details.

Unlock Doors
When the engine is ON, press and release the remote control button. The doors unlock, the parking lights flash, the horn sounds (if connected) as confirmation. The remote confirms unlocking with 2 short beeps and a green LED flash.
Note: Horn honk may be an optional feature that requires additional parts and labor.

Stop Engine
When the engine is ON, press and hold the remote control button for 3 seconds. The engine stops running and the parking lights turn off. The remote plays the remote start shut off tones and the orange LED flashes 1 time.

Car Finder

When the engine is OFF, press and hold the remote control button for three seconds. The parking lights flash ten times. The remote responds with 1 short beep and the orange LED on the remote flashes once.

Using Remote Start

> **Important!** (1) Never remotely start the vehicle with the vehicle in gear, and (2) Never remotely start the vehicle with the key in the ignition.

Starting the Engine:
1. Press and release the remote control button.
2. The engine will START and the parking lights will turn on. The remote responds with the remote start On tones and the green LED on the remote flashes once.
3. The parking lights stay on as visual confirmation while the engine is ON. The default runtime is 12 minutes and can be shortened or extended by the installer.

If you wish to warm or cool the vehicle interior set the climate controls to the desired temperature prior to starting.

Key Takeover

When you are ready to drive the vehicle:
1. Unlock the doors
2. Enter the vehicle. Do not step on the foot brake
3. Insert the key, turn it to the run (not start) position. Step on the foot brake. The remote start is disabled and the parking lights turn off.
4. Begin driving.

Note	If your vehicle uses a Smart Key or PTS (Push-To-Start) system, please refer to the vehicle specific instructions included with the owner's guide of the interface module or consult your authorized dealer.

Safety Features

The following safety features will disable the remote start when activated or not allow the engine to start if not properly set before starting.

- Foot Brake is depressed
- Hood is open
- Shut down toggle switch is OFF
- Engine over-rev protection (Tachometer mode only)

Pit Stop

This remote start can keep the engine running during short trips away from the vehicle.

Enabling Pit Stop mode:
1. Park in a well ventilated area.
2. With the engine running set the transmission in the park position.
3. Press and release the remote control button, the parking lights turn on to confirm.
4. Turn off the ignition and remove the key, the engine continues running.
5. Exit the vehicle, the engine runs for the programmed runtime.

Note	If your vehicle uses a Smart Key or PTS (Push-To-Start) system, please refer to the vehicle specific instructions included with the owner's guide of the interface module or consult your authorized dealer.

Optional Rear Defogger

If connected, the Defogger circuit automatically activates after remote starting the vehicle.

Optional Starter Anti-Grind Circuitry

This system includes an anti-grind circuit that can prevent damage to the starter motor if the key is turned to the start position while the engine is ON.

Note: Anti-grind circuitry only works when the remote start system is operating the motor.

Disabling the Remote Start System

When the Shutdown Switch is set to the OFF position, remote engine starting is defeated. DO this when the vehicle is being serviced or driven by someone unfamiliar with remote start system operations.

Location Of Shutdown Switch: _____

Rapid Resume Logic

This Directed system stores its current state to non-volatile memory. If power is lost and then reconnected the system recalls the stored state from memory.

Remote Programming

1. Turn key to the ON position
2. Within 10 seconds, press and release Valet button one time.
3. Within 10 seconds, press and hold the Valet button. The LED on the module flashes one time and the horn honks (if connected) to confirm entry into remote programming. Do not release the valet button.
4. Press the button on the remote control. The horn honks to confirm the remote has been programmed.
5. Release the Valet button.
6. Turn the key to the Off position. The horn sounds one long honk to confirm that remote programming has been exited.

The programming routine exits if any of the following occurs:
- The ignition is turned off
- There is no activity for 30 seconds
- The Valet button is pressed too many times

Programming Options

Programming options control your system's normal operational set-up. Most options do not require additional parts, but some may require installation labor.

The following is a list of the programmable options, with the factory settings in **bold**.

- Your system can be programmed to allow the vehicle to run for up to 60 minutes when remote started. Can be set up to minute increments by your installer.
- Parking lights flashing or **constant**. Your system can be programmed to flash or turn on the parking lights constantly during the entire remote start operation.

- Ignition switch controlled door locking on or **OFF**. With this feature on, the doors will lock 3 seconds after the ignition key is turned on, and unlock when the key is turned off.

Important: The door lock option must be installed for this feature to work.

Patent Information

This product is covered by one or more of the following United States patents:

Remote Start Patents:
5,349,931; 5,872,519; 5,914,667; 5,952,933; 5,945,936; 5,990,786; 6,028,372; 6,467,448; 6,561,151; 7,191,053; 7,483,783

Vehicle Security Patents:
5,467,070; 5,532,670; 5,534,845; 5,563,576; 5,646,591; 5,650,774; 5,673,017; 5,712,638; 5,872,519; 5,914,667; 5,952,933; 5,945,936; 5,990,786; 6,028,505; 6,452,484
Other patents pending.

Government Regulations

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesirable operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

This device complies with the Industry Canada Radio Standards Specification RSS 210. Its use is authorized only on a no-interference, no-protection basis; in other words, this device must not be used if it is determined that it causes harmful interference to services authorized by IC. In addition, the user of this device must accept any radio interference that may be received, even if this interference could affect the operation of the device.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

Warning! Safety first

⚠️ The following safety warnings must be observed at all times:

Installation

Due to the complexity of this system, installation of this product must only be performed by an authorized Directed dealer.

Remote Start Capable

When properly installed, this system can start the vehicle via a command signal from the remote control. Therefore, never operate the system in an enclosed area or partially enclosed area without ventilation (such as a garage). When parking in an enclosed or partially enclosed area or when having the vehicle serviced, the remote start system must be disabled using the installed toggle switch. It is the user's sole responsibility to properly handle and keep out of reach from children all remote control remote controls to assure that the system does not unintentionally remote start the vehicle. THE USER MUST INSTALL A CARBON MONOXIDE DETECTOR IN OR ABOUT THE LIVING AREA ADJACENT TO THE VEHICLE. ALL DOORS LEADING FROM ADJACENT LIVING AREAS TO THE ENCLOSED OR PARTIALLY ENCLOSED VEHICLE STORAGE AREA MUST AT ALL TIMES REMAIN CLOSED. These precautions are the sole responsibility of the user.

Use of this product in a manner contrary to its intended mode of operation may result in property damage, personal injury, or death. (1) Never remotely start the vehicle with the vehicle in gear, and (2) Never remotely start the vehicle with the keys in the ignition. The user must also have the neutral safety feature of the vehicle periodically checked, wherein the vehicle must not remotely start while the car is in gear. This testing should be performed by an authorized Directed dealer in accordance with the Safety Check outlined in the product installation guide. If the vehicle starts in gear, cease remote start operation immediately and

consult with the authorized Directed dealer to fix the problem.

After the remote start module has been installed, contact your authorized dealer to have him or her test the remote start module by performing the Safety Check outlined in the product installation guide. If the vehicle starts when performing the Neutral Safety Shutdown Circuit test, the remote start unit has not been properly installed. The remote start module must be removed or the installer must properly reinstall the remote start system so that the vehicle does not start in gear. All installations must be performed by an authorized Directed dealer.

OPERATION OF THE REMOTE START MODULE IF THE VEHICLE STARTS IN GEAR IS CONTRARY TO ITS INTENDED MODE OF OPERATION. OPERATING THE REMOTE START SYSTEM UNDER THESE CONDITIONS MAY RESULT IN PROPERTY DAMAGE OR PERSONAL INJURY. YOU MUST IMMEDIATELY CEASE THE USE OF THE UNIT AND SEEK THE ASSISTANCE OF AN AUTHORIZED Directed DEALER TO REPAIR OR DISCONNECT THE INSTALLED REMOTE START MODULE. DIRECTED WILL NOT BE HELD RESPONSIBLE OR PAY FOR INSTALLATION OR REINSTALLATION COSTS.

This product is designed for fuel injected, automatic transmission vehicles only. Use of this product in a standard transmission vehicle is dangerous and contrary the product's intended use.

Interference
All radio devices are subject to interference which could affect proper performance.

Upgrades
Any upgrades to this product must be performed by an authorized Directed dealer. Do not attempt to perform any unauthorized modifications to this product.

Water/Heat Resistance

This product is not designed to be water and/or heat-resistant. Please take care to keep this product dry and away from heat sources. Any damage from water or heat will void the warranty.

Limited lifetime consumer warranty

Directed Electronics. ("Directed") promises to the original purchaser to repair or replace (at Directed's election) with a comparable reconditioned model any Directed unit (hereafter the "unit"), excluding without limitation the siren, the remote transmitters, the associated sensors and accessories, which proves to be defective in workmanship or material under reasonable use during the lifetime of the vehicle provided the following conditions are met: the unit was purchased from an authorized Directed dealer, the unit was professionally installed and serviced by an authorized Directed dealer; the unit will be profession¬ally reinstalled in the vehicle in which it was originally installed by an authorized Directed dealer; and the unit is returned to Directed, shipping prepaid with a legible copy of the bill of sale or other dated proof of purchase bearing the following information: consumer's name, telephone number and address; the authorized dealers name, telephone number and address; complete product description, including accessories; the year, make and model of the vehicle; vehicle license number and vehicle identification number. All components other than the unit, including without limitation the siren, the remote transmitters and the associated sensors and accessories, carry a one-year warranty from the date of purchase of the same. ALL PRODUCTS RECEIVED BY DIRECTED FOR WARRANTY REPAIR WITHOUT PROOF OF PURCHASE FROM AN AUTHORIZED DEALER WILL BE DENIED. This warranty is non-transferable and is automatically void if: the unit's date code or serial number is defaced, missing or altered; the unit has been modified or used in a manner contrary to its intended purpose; the unit has been damaged by accident, unreasonable use, neglect, improper service, installation or other causes not arising out of defects in materials or construction. The warranty does not cover damage to the unit caused by installation or removal of the unit. Directed, in its sole discretion, will determine what constitutes excessive damage and may refuse the return of any unit with excessive damage.

TO THE MAXIMUM EXTENT ALLOWED BY LAW, ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, ARE EXPRESSLY EXCLUDED; AND DIRECTED NEITHER ASSUMES NOR AUTHORIZES ANY PERSON OR ENTITY TO ASSUME FOR IT ANY DUTY, OBLIGATION OR LIABILITY IN CONNECTION WITH ITS PRODUCTS. DIRECTED DISCLAIMS AND HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS. DIRECTED SECURITY SYSTEMS, INCLUDING THIS UNIT, ARE DETERRENTS AGAINST POSSIBLE THEFT. DIRECTED IS NOT OFFERING A GUARANTEE OR INSURANCE AGAINST VANDALISM, DAMAGE OR THEFT OF THE AUTOMOBILE, ITS PARTS OR CONTENTS; AND HEREBY EXPRESSLY DISCLAIMS ANY LIABILITY WHATSOEVER, INCLUDING WITHOUT LIMITATION, LIABILITY FOR THEFT, DAMAGE AND/OR VANDALISM. THIS WARRANTY DOES NOT COVER LABOR COSTS FOR MAINTENANCE, REMOVAL OR REINSTALLATION OF THE UNIT OR ANY CONSEQUENTIAL DAMAGES OF ANY KIND.

IN THE EVENT OF A CLAIM OR A DISPUTE INVOLVING DIRECTED OR ITS SUBSIDIARY, THE VENUE SHALL BE SAN DIEGO COUNTY IN THE STATE OF CALIFORNIA. CALIFORNIA STATE LAWS AND APPLICABLE FEDERAL LAWS SHALL APPLY AND GOVERN THE DISPUTE. THE MAXIMUM RECOVERY UNDER ANY CLAIM AGAINST DIRECTED SHALL BE STRICTLY LIMITED TO THE AUTHORIZED DIRECTED DEALER'S PURCHASE PRICE OF THE UNIT. DIRECTED SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, DAMAGE TO VEHICLE, DAMAGES FOR THE LOSS OF TIME, LOSS OF EARNINGS, COMMERCIAL LOSS, LOSS OF ECONOMIC OPPORTUNITY AND THE LIKE. NOTWITHSTANDING THE ABOVE, THE MANUFACTURER DOES OFFER A LIMITED WARRANTY TO REPLACE OR REPAIR THE CONTROL MODULE SUBJECT TO THE CONDITIONS AS DESCRIBED HEREIN. THIS WARRANTY IS VOID IF THE UNIT HAS NOT BEEN PURCHASED FROM DIRECTED, OR AN AUTHORIZED DIRECTED DEALER, OR IF THE UNIT HAS BEEN DAMAGED BY ACCIDENT, UNREASONABLE USE, NEGLIGENCE, ACTS OF GOD, NEGLECT, IMPROPER SERVICE, OR OTHER CAUSES NOT ARISING OUT OF DEFECT IN MATERIALS OR CONSTRUCTION.

Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights and you may also have other rights that vary from State to State.

This warranty is only valid for sale of product(s) within the United States of America and in Canada. Product(s) sold outside of the United States of America or Canada are sold "AS-IS" and shall have NO WARRANTY, express or implied.

For further details relating to warranty information of Directed products, please visit the support section of Directed's website at: www.directed.com

This product may be covered by a Guaranteed Protection Plan ("GPP"). See your authorized Directed dealer for details of the plan or call Directed Customer Service at 1-800-876-0800.

DIRECTED.

The company behind Viper® Auto Security Systems is Directed.

Since its inception, Directed has had one purpose, to provide consumers with the finest vehicle security and accessories available. The recipient of nearly 100 patents and Innovations Awards in the field of advanced electronic technology.

Quality Directed products are sold and serviced throughout North America and around the world.

Call **(800) 876-0800** for more information about our products and services.

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Vista, CA 92081
www.viper.com

Directed is committed to delivering world class quality products and services that excite and delight our customers.

Quick Reference Install Guide
Remote Start with Keyless Entry
4205-series, 1-button remote

Wiring Connections

Primary Harness (H1), 9-pin connector

H1/1	LIGHT GREEN BLACK	(-) 200mA FACTORY ALARM DISARM OUTPUT
H1/2	GREEN/WHITE	(-) 200mA FACTORY ALARM REARM OUTPUT
H1/3	YELLOW	(+) IGNITION OUT (TO ALARM)
H1/4	WHITE/BLUE	(-) ACTIVATION INPUT
H1/5	ORANGE	(-) 500mA GROUND WHEN LOCKED/ANTI-GRIND OUTPUT
H1/6	BROWN	(-) 200mA HORN OUTPUT
H1/7	RED/WHITE	(-) 200mA TRUNK RELEASE OUTPUT*
H1/8	BLACK	GROUND INPUT
H1/9	WHITE	(+/-) LIGHT FLASH OUTPUT

*Option not available on 1- button

Remote Start harness, (H3) 5-pin connector

H3/1	BLACK/WHITE	(-) NEUTRAL SAFETY SWITCH INPUT
H3/2	VIOLET/WHITE	TACHOMETER INPUT
H3/3	BROWN	(+) BRAKE SHUTDOWN INPUT
H3/4	GRAY	(-) HOOD PIN SWITCH SHUTDOWN INPUT
H3/5	BLUE/WHITE	(-) 200 mA 2ND STATUS/REAR DEFOGGER OUTPUT

Heavy Gauge Relay, 6-pin connector
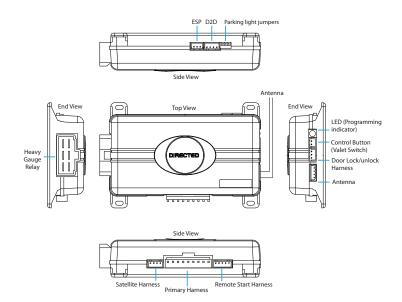
1	RED	(+) (30A) HIGH CURRENT 12V INPUT
2	PINK/WHITE	OUTPUT TO SECOND IGNITION/ACCESSORY CIRCUIT
3	RED	(+) (30A) HIGH CURRENT 12V INPUT
4	ORANGE	OUTPUT TO ACCESSORY CIRCUIT
5	PURPLE	OUTPUT TO STARTER CIRCUIT
6	PINK	OUTPUT TO PRIMARY IGNITION CIRCUIT

Satellite harness - 4-pin connector

1	BLUE	(-) 200mA STATUS OUTPUT
2	ORANGE	(-) 200mA ACCESSORY OUTPUT
3	PURPLE	(-) 200mA STARTER OUTPUT
4	PINK	(-) 200mA IGNITION OUTPUT

Door Lock, 3-pin connector

1	LIGHT BLUE	(-) UNLOCK OUTPUT
2	EMPTY	NOT USED
3	GREEN	(-) LOCK OUTPUT

ESP   D2D   Parking light jumpers

Side View

End View   Top View   Antenna   End View

LED (Programming indicator)

Control Button (Valet Switch)

Door Lock/unlock Harness

Antenna

Heavy Gauge Relay

DIRECTED

Side View

Satellite Harness   Primary Harness   Remote Start Harness

Installation Points

Tach Learning

To learn the tach signal:
1. Start the vehicle with the key.
2. Within 5 seconds, press and hold the Valet (Control) button.
3. After 3 seconds the system LED will light constant when the tach signal is learned.
4. Release the Valet (Control) button.

> **Important:** This unit can learn the tachometer with the analog input or through D2D using an interface module. The unit confirms which source is used by flashing the parking lights.

When programming tach learning with:
- **Analog,** the parking lights flash **one** time
- **D2D interface module,** the parking lights flash **twice**

If the tachometer input on the system is connected to the vehicle, the D2D tachometer input will be ignored.

Virtual Tach

Note: Virtual tach is not recommended for diesel vehicles.

To program Virtual Tach:
1. After the install is complete, remote start the car.
2. If the car does not start on the first attempt, let the remote start attempt again.
3. Once the car starts, let it run until the parking lights come on.
4. When the parking lights come on, shut off the remote start with the remote - that's it! Virtual Tach is programmed.

Virtual Tach handles disengaging the starter motor during remote starting – it does not address over-rev. If the customer wants to have the over-rev protection capability, the tach wire must be connected. This may involve more installation shop charges than initially quoted.

> **Important:** If the Virtual Tach mode over cranks or doesn't crank the vehicle long enough to start and run the car, use the Bitwriter to add or subtract the starter output time. You can adjust the output time in increments of 50msec of the learned time using the Bitwriter.

Reset and Deletion

If a feature/virtual tach needs to be reset or the remote controls need to be deleted, use the following procedure.

1. Turn the ignition to the ON position (The heavy gauge pink wire must be connected).
2. Within 10 seconds, press and release the Valet button: 2 times if you want to delete remotes, 3 times to reset features or 4 times to reset virtual tach. These features are described next.

> **Delete remotes:** This feature erases all remotes from the memory of the system. This is useful in cases when a customer's remote is lost or stolen. Note: This does not reset the programmed features of the system or reset the Virtual Tach setting.
>
> **Reset Features:** This resets all features of the system to the factory default settings. Note: This feature does not delete the remotes from the system or reset the Virtual Tach setting
>
> **Virtual Tach Reset:** Deletes all previously learned values for Virtual Tach, and on the next remote start sequence the unit begins virtual tach initialization.
>
> Note: The "Zap" feature on the Bitwriter does not reset the Virtual tach setting.

3. Once you have selected the function step, press the Valet button once more and hold it. The LED flashes and the horn honks to confirm the selected functional step. Do not release the Valet button.
4. While holding the Valet button, press the button on the remote control. The horn honks to confirm that the feature has been successfully reset. You can now release the Valet button.

Remote Start Shutdown Diagnostics

To perform shutdown diagnostics:
1. With the ignition Off, **press** and **hold** the Valet button.
2. **Turn** the ignition On and then back Off while **holding** the Valet button.
3. **Release** the Valet button.
4. **Press** and **release** the Valet button. The LED flashes to report the last shutdown for one minute or until the ignition is turned on, as shown in the following table:

LED Flashes	Shutdown Mode
1 flash	Timed out
2 flashes	Over-rev shutdown
3 flashes	Low or no RPM, low battery (voltage and virtual tach modes)
4 flashes	Transmitter shutdown (or optional push button)
5 flashes	(-) Hood Shutdown (H3/4 GRAY)
6 flashes	(+) Shutdown (H3/3 BROWN)
7 flashes	(-) Neutral safety shutdown (H3/1 BLACK/WHITE)
8 flashes	Wait-to-start timed out

Bitwriters with a date code of 6a or older require an IC upgrade (p/n 998M). Some bitwriters with a date code of 6B do not require the IC upgrade, refer to tech tip # 1112 for more information.

D2D
DATA TO DATA

The Bitwriter® (p/n 998U) requires chip version **2.7** or newer to program this unit.

Programming System Features

The System Features Learn Routine dictates how the unit operates. It is possible to access and change most of the feature settings using the Valet button.

1. **Turn** the ignition on, then off.
2. **Select** a Menu. Within 10 seconds, **Press** and hold the Valet button. The number of LED flashes and horn honks indicates the menu number. A single LED flash and honk indicates menu 1. Two LED flashes and 2 honks indicates menu 2.
3. When the desired menu LED flashes and honks are heard, **release** the Valet button.
4. **Select** a Feature, within 10 seconds. **Press** and **release** the Valet button the number of times corresponding to the feature you wish to change. Then **press** and **hold** one more time to select the feature. The LED flashes and the horn honks to indicate which feature is selected.
5. **Program** the Feature. While holding the Valet button, you can program the feature using the remote control.

Pressing the button on the remote control advances to each feature option. The LED flashes and the horn honks indicating which option is selected.

Once a feature is programmed:
* Other features can be programmed within the same menu
* Another menu can be selected
* The learn routine can be exited if programming is complete

To access another feature in the same menu:
1. **Press** and **release** the Valet button the number of times necessary to advance from the feature you just programmed to the next one you want to program.
2. Then **press** the Valet button once more and **hold** it.

To select another menu:
1. **Press** and **hold** the Valet button.
2. After 3 seconds, the unit advances to the next menu, the horn honks and LED flashes indicating which menu has been accessed.

The learn routine exits if any of the following occurs:
* The ignition is turned On
* There is no activity for 30 seconds
* The Valet button is pressed too many times

Bitwriter - Only Options

If programming with the Bitwriter®, the learn routine can be locked or unlocked. If the learn routine has previously been locked, it must be unlocked with Bitwriter® - this cannot be done manually with the Valet button.

The Bitwriter® gives you access to a wider range of system options. These additional features and the adjustments that may be programmed are described in the table below.

Menu Item	Feature	Default	Options
1	Engine Runtime	12 min.	1-60 min.
2	Diesel start type	Off	Timed
3	Diesel start delay time (seconds)	15 sec	1-90 sec.
4	Virtual Tach Fine Tune	Not initialized	0 to 1 second in 50 millisecond increments
5	Remote control programming	Unlocked	Locked
6	Feature Programming	Unlocked	Locked

Feature Menus

Default settings are in bold type.

Menu 1

Feature #	Feature	Opt. 1	Opt. 2	Opt. 3	Opt.4	Opt. 5+
1	Horn function	**Off**	Siren 20 mS	Siren 30 mS	Siren 40 mS	Siren 50 mS
2	Ignition controlled lock	On	**Off**			
3	Ignition controlled unlock	On	**Off**			
4	Doorlock output duration	**0.8 sec.**	3.5 sec.	0.4 sec.		
5	Double pulse unlock	**Off**	On			
6	Double pulse lock	**Off**	On			
7	Factory Alarm Disarm function	**with unlock**	Before unlock	Remote start only		
8	Factory Alarm Disarm Pulses	**Single**	Double			
9	Comfort* Closure	Comfort Closure 1	**Off**	Comfort Closure 2		
10	Panic*	**On**	Off			

***Option not available on 1- button

Menu 2

Feature #	Feature	Opt. 1	Opt. 2	Opt. 3	Opt.4	Opt. 5+
1	Engine checking	**Virtual tach**	voltage	Off	tachometer	
2	Engine Runtime	**12 min**	24 min	60 min		
3	Park light output	Pulsed	**Constant**			
4	Cranking time	**0.6 sec.**	0.8 sec.	1.0 sec.	1.2 sec.	1.4, 1.6, 1.8, 2.0, 4.0 sec
5	Activation pulse count	**1 pulse**	2 pulses	3 pulses		
6	2nd Ignition behavior	**Ignition**	Accessory			
7	Accessory output	**Off during wait-to-start**	On during wait-to-start			
8	2nd Status behavior	**Normal**	Latch rear defogger	Pulse rear defogger		
9	Anti-grind	**On**	Off			
10	Diesel start delay	**Off**	Timed 15 sec	Timed 30 sec.	Timed 45 sec.	
11	Timer mode- run time *	**12 min**	3 min	6 min	9 min	

*Option not available on 1- button

Remote Programming

1. Turn key to the ON position
2. Within 10 seconds, press and release Valet button one time.
3. Within 10 seconds, press and hold the Valet button. The LED will flash one time and the horn honks (if connected) to confirm entry into remote programming.
4. Press the button on the remote control.
5. The horn honks to confirm the remote has been programmed.
6. Release the Valet button, and turn the key to the Off position.
7. The horn sounds one long honk to confirm that remote programming has been exited.

The programming routine exits if any of the following occurs:
* The ignition is turned off
* There is no activity for 30 seconds
* The Valet button is pressed too many times

Basic Remote Functions

Button Press	Function when remote start is OFF	Function when remote start is ON
Press for less than 1.5 seconds	Start the engine	Unlock doors
Press for more than 1.5 seconds	Car finder	Stop the engine

See full Installation Guide for more detailed information on this system. Such information and more can be found online at:
www.directechs.com

DIRECTED®